

IN THE CLAIMS

1. (Currently Amended) An extracorporeal filter, comprising:
a housing having an inlet for blood;
an outlet for waste and ultrafiltrate in flow communication with a filtrate portion of an interior volume of said housing;
a cap attached to the housing opposite the inlet, the cap having an outlet port for blood and an infusion port, both in flow communication with a blood portion of an interior volume of said housing; and
a filter media received within the housing configured to separate said blood portion of said housing from said filtrate portion of said housing.
2. (Currently Amended) The filter of claim 1, wherein the infusion port is radially adjacent the outlet port for blood such that fluid injected into said infusion port may be mixed with blood therein.
3. (Original) The filter of claim 1, wherein the cap is solvent bonded to the housing.
4. (Original) The filter of claim 1, wherein the cap is removably attached to the housing.
5. (Original) The filter of claim 1, wherein the port is adapted to receive replacement fluid.
6. (Original) The filter of claim 1, wherein the housing has a second cap that carries the inlet.
7. (Original) The filter of claim 1, further comprising a second port adapted to receive dilution fluid radially adjacent the inlet.
8. (Original) The filter of claim 1, wherein a gap between the filter and the cap defines a headspace.

9.-10. (Canceled)

11. (Original) The filter of claim 1, wherein the housing is generally cylindrical.

12.-57. (Canceled)

58. (New) A filter for use in extracorporeal blood treatment, comprising:

a housing having a filter membrane separating blood and non-blood interior volumes
therewithin;

said blood interior volume having an entrance portion with a blood inlet;

said blood interior volume having an exit portion with a blood outlet;

a non-blood outlet in communication with said non-blood interior volume;

at least one of said entrance and exit portions having a dilution inlet arranged such that
dilution fluid may be mixed into blood thereat.

59. (New) A filter as in claim 58, wherein said filter membrane comprises filter fibers
extending between said entrance portion and said exit portion.

60. (New) A filter as in claim 59, wherein said entrance and exit portions define head
spaces in communication with openings in multiple said filter fibers.

61. (New) A filter as in claim 58, wherein said dilution inlet is arranged to inject said
dilution fluid at a point offset from a center of said at least one of said exit entrance and portions
such that a swirl effect tends to be generated.

62. (New) A filter as in claim 61, wherein said filter membrane comprises filter fibers
extending between said entrance portion and said exit portion.

63. (New) A filter as in claim 62, wherein said entrance and exit portions define head
spaces in communication with openings in multiple said filter fibers.

64. (New) A filter for use in extracorporeal blood treatment, comprising:

a housing supporting multiple filter fibers connected to head spaces at ends of said multiple filter fibers, said head spaces being in flow communication through interiors of said filter fibers, said head spaces otherwise being isolated from each other;

a blood inlet in a first of said head spaces arranged to allow blood to flow from said first of said head spaces to a second of said head spaces through said multiple filter fibers;

a blood outlet in said second of said head spaces, said blood outlet having a dilution fluid inlet arranged to permit dilution fluid to be injected into blood in said second of said head spaces, whereby a potential for clotting in said second of said head spaces is reduced.

65. (New) A filter as in claim 64, wherein said dilution fluid inlet is arranged to generate turbulent mixing in said second of said head spaces.

66. (New) A filter as in claim 64, wherein a direction of flow of said dilution fluid inlet is substantially opposite and parallel a direction of flow of said blood outlet.

67. (New) A filter for use in extracorporeal blood treatment, comprising:
a housing supporting multiple filter fibers connected to inlet and outlet head spaces joined for flow communication by said multiple filter fibers, said head spaces otherwise being isolated from each other;

a blood inlet in inlet head space arranged to allow blood to flow from said inlet head space;

a blood outlet in said outlet head space; and

a dilution fluid inlet in said outlet head space;

said blood inlet and outlets being connectable to external blood lines and said dilution fluid inlet being connectable to a source of replacement fluid.

68. (New) A filter as in claim 67, wherein a direction of flow of said dilution fluid inlet is substantially opposite and parallel a direction of flow of said blood outlet.